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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,745	03/15/2004	Michel Lissandre	119030	9226

25944 7590 02/08/2006

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EXAMINER

BRAHAN, THOMAS J

ART UNIT	PAPER NUMBER
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3654

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/799,745	Applicant(s) LISSANDRE, MICHEL	
	Examiner Thomas J. Brahan	Art Unit 3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). .
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/15/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. The drawings are objected to under 37 C.F.R. § 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the tower crane arrangement which is devoid of a masthead and a jib tie, as recited in claim 19, must be shown, or the feature must be canceled from the claims. No new matter may be entered.

2. If corrected drawing sheets are submitted to overcome the above objection, they must be in compliance with 37 CFR 1.121(d) and are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended". If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).

3. If the changes are not accepted by the examiner, because for example introducing new matter, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The following is a quotation of the all of the paragraphs of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which applicant regards as his invention.

A claim may be written in independent or if the nature of the case admits, in dependent or multiple dependent form

Subject to the following paragraph, a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

A claim in multiple dependent form shall contain a reference, in the alternative only, to more than one claim previously set forth and then specify a further limitation of the subject matter claimed. A multiple dependent claim shall not serve as a basis for any other multiple dependent claim. A multiple dependent claim shall be construed to incorporate by reference all the limitations of the particular claim in relation to which is being considered.

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

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5. Claim 19 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The disclosure lacks an enabling description of a tower crane devoid of a masthead. As any structure located at the upper end of the mast of a tower crane would be considered as a mast head, how can applicant's crane lack a masthead?

6. Claims 1-19 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document. **For example:**

- a. In claim 1, lines 1 and 2, the scope of the claim is unclear due to the limitation "or another similar latticework structure".
- b. In claim 1, lines 4 and 5, the limitation "there is provided an assembly by shackle and tenon connected demountably by means of a shaft" is unclear.
- c. In claim 1, line 11, the term "the connecting shaft" lacks antecedent basis within the claim.
- d. In claim 2, the terms "their lower part" of the branches and "the lower face of the tenon" lack antecedent basis within the claims.
- e. It is unclear as to how the last three lines of claim 1 can refer to a direction as a horizontal direction, as the boom sections would assume orientations which would have non-horizontal directions for the abutment means. Claim 3 also refers twice to the horizontal direction or position.
- f. Claim 3 is not fully understood. It begins by discussing "the abutment means acting in a substantially horizontal direction" as to be discussing one of the complementary abutment means of claim 1. However the last three lines of the claim appears to be reciting the vertical abutment means structure as part of the horizontal abutment means.
- g. In claim 3, the term "the shaft-shaped rotary positioner" lacks antecedent basis within the claims.
- h. In claim 7, the term "the connecting shaft" lacks antecedent basis within the claims. Also the limitation "the connecting shaft, of cylindrical general shape, engaged through the shackle and the tenon" also lacks antecedent basis within the claims and appears to be indirectly reciting claim limitations.
- i. In claim 8, the terms "the connecting cable" and "the head of the connecting shaft" lack antecedent basis within the claims.
- j. In claim 8, the term "in particular" renders the claim indefinite as failing to positively recite the subject matter of the claimed invention.
- k. In claim 9, the use of the term "it" in line 2 is awkward and the term "the region of the lower chords", used twice, lacks antecedent basis within the claims.
- l. In claim 10, the term "the elongation" lacks antecedent basis within the claims. Also the terms

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“the elongation of the preceding part” and “cone aperture angle” are unclear.

m. In claims 11, 12, and 16, the term “the stinger” lacks antecedent basis within the claims.

n. In claim 11 the terms “on the one hand” and “on the other hand” is awkward and fails to positively recite the structure of the invention.

o. Claim 13 is not understood as it appear to add an additional jib element in line 3.

p. In claim 15 the term “such as a pin” fails to positively recite the structure of the invention.

q. In claim 18, the term “the locking wedge” lacks antecedent basis within the claims. Note the wedge itself is never positively included in the claims, only the receptacle for receiving the wedge.

r. In claim 19, it is unclear as to how applicant is considering the assembly device as usable on a tower crane without a mast head. What structure could be used to connect the upper end of the mast to the jib and to the counterjib which would not be considered as a masthead?

7. Claim 19 has not been further treated on the merits with rejections based upon prior art.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1 and 2, as best understood, are rejected under 35 U.S.C. § 102(b) as being anticipated by König. König shows a device for assembly of the latticework jib elements of a tower crane or another similar latticework structure, the elements comprising upper chords and lower chords connected to one another by means of triangulation bars, characterized in that, in the region the upper chords, there is provided an assembly by shackle and tenon connected demountably by means of a shaft, with:

a shackle integral with an upper chord end of an element to be assembled, the shackle possessing two branches (53, 53a, 53b) located in parallel vertical planes and pierced with main coaxial cylindrical holes (55) of a diameter corresponding to the diameter of a connecting shaft (56),

a tenon integral (54, 54a, 54b) with another upper chord end of an element to be assembled, the tenon being located in a vertical plane and being pierced with an oblong hole (57),

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the connecting shaft (56 or 58) capable of being engaged through main cylindrical holes of the shackle and through the oblong hole of the tenon (pins 56 and 58 appear to be identical as to be interchangeable as to inherently be capable of fitting in hole 55 or hole 57; if they are not identical, the smaller of the pins has the capability of fitting into either hole), and,

on the shackle and the tenon, complementary abutment means (28a, 28b, 28c, 28d, 60, 63, 64) acting in a substantially vertical direction and in a substantially horizontal direction for the relative positioning of the shackle and the tenon during assembly.

The abutment means acting in the vertical direction includes an abutment plate (28a or 28b) adjoining the lower part of branches of the shackle and cooperating with the lower face of the tenon, note the term cooperating is broad, as recited in claim 2.

11. Claims 1, 9, 11 and 12, as best understood, are rejected under 35 U.S.C. § 102(b) as being anticipated by Walker. Walker shows a device for assembly of the latticework jib elements of a tower crane or another similar latticework structure, the elements comprising upper chords and lower chords connected to one another by means of triangulation bars, characterized in that, in the region the upper chords, there is provided an assembly by shackle and tenon connected demountably by means of a shaft, with:

a shackle integral with an upper chord end of an element to be assembled, the shackle possessing two branches (74 76) located in parallel vertical planes and pierced with main coaxial cylindrical holes of a diameter corresponding to the diameter of a connecting shaft (780,

a tenon (37) integral with another upper chord end of an element to be assembled, the tenon being located in a vertical plane and being pierced with an oblong hole (upper socket 51),

the connecting shaft (78) capable of being engaged through main cylindrical holes of the shackle and through the oblong hole of the tenon, and,

on the shackle and the tenon, complementary abutment means (the abutment surfaces at 52) acting in a substantially vertical direction and in a substantially horizontal direction for the relative positioning of the shackle and the tenon during assembly.

The lower regions of the boom connections include a pair of centering pegs (39) received in holes (the spaces at 38) and a pair of locking assemblies (64), as recited in claim 9. The centering pegs (39) and their holes appear to be at cross members or “stingers” as claims 11 and 12 are best understood.

12. Claim 7, as best understood, is rejected under 35 U.S.C. § 103(a) as being unpatentable over by König in view of Kelp et al and Young et al. König shows the basic claimed boom connection, as detailed above. It varies from claim 7 by not having a locking cotter pin or a connecting cable for the pin (56). However these are both conventional locking pin features. Kelp et al shows a similar locking pin with a cotter pin (3a). Young et al shows a tethered connecting pin (100). It would have been obvious to one of ordinary skill in the art at the time the invention was made by applicant to modify the connecting pin (56) of König by providing it with a cotter pin, to have it hold its

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connection, as taught by Kelp et al. It would further have been obvious provide it with a tether, to prevent its loss, as taught by Young et al.

13. Claim 7, as best understood, is rejected under 35 U.S.C. § 103(a) as being unpatentable over by Walker in view of Young et al. Walker shows the basic claimed boom connection, as detailed above. It has cotter pins at both ends of pin (78), see column 6, lines 13-18. It varies from claim 7 by not having a connecting cable; note that one of the cotter pins is being considered as the recited widened head portion. Young et al shows a tethered connecting pin (100). It would have been obvious to one of ordinary skill in the art at the time the invention was made by applicant to modify the connecting pin (78) of Walker by providing it with a tether, to prevent its loss, as taught by Young et al.

14. With the exception of claim 19, the remaining claims which have not been rejected with prior art appear to include allowable subject matter and would be allowable if rewritten to avoid the rejections under 35 U.S.C. § 112.

15. Felkner, Franzen et al and Pech et al are cited as showing related boom couplings.

16. An inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Brahan whose telephone number is (571) 272-6921. The examiner's supervisor, Ms. Katherine Matecki, can be reached at (571) 272-6951. The new fax number for all patent applications is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Questions regarding access to the Private PAIR system, should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T.J. Brahan 2/3/06

Thomas J. Brahan
Primary Examiner
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